

Work Order ID 77363

December-06-11 10:30:10 AM

77363

Page 1

Item ID: D350-636-011

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Skidtube LH

Stop

NS2

Start Date: 06/12/2011 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 20/12/2011 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: M.L.J

Date: 11/12/06 Tooling: _____ Date: _____

Run

Stop

NR1

QC: _____

Date: _____ SPC (Y/N): _____ Date: _____

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2750	F								
D3492	C								

100

0.00

100

DOCUMENT CONTROL

DC

Document Control

Memo

0.00

Photocopy blue file and type labels per PPP D350-636-011 CHG 006

8/12/12

JL M.L.J 12-1-20
①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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NS2

Start Date: 06/12/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 20/12/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

110

110

Skidtubes

Skidtubes

0.00

0.00

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details).Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8-Open up holes for Detail B to 0.375" (4 holes per side)and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750 .Open up holes for ground handling and detail C to 0.500" (8 holes per side)

9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

BB 12/01/08

W/O:		WORK ORDER CHANGES					
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	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch: <u>m119712</u>	SE 12-01-09							
	12-Grind welds flush as per Dwg D2750	BB 12/01/09							

120

120

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

S 12/01/09

130

130

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

S 12/01/09

W/O:		WORK ORDER CHANGES							
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Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

m

12.01.09(1)

150

QC3- Inspect Part Finish

0.00

150

QC

Memo

0.00

Quality Control

75 12-01-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
160	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.								
	2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750.								
	3- Open float hole to 0.500" (4 per side)								
	4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8)								
	5-Deburr and blow out all chips from inside of tube								
	6- Prepare tube for welding, remove alodine as required.								
	7-Bond web D2739 in place as per QSI015 A/R Sikaflex-291 batch: <u>119506</u> exp. date: <u>12-10-13</u>								
	8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: <u>M119712</u>								
	9- At section AJ-AJ drill out x-bolt spacer to 0.404"								
	10-Grind welds flush as per Dwg D2750								

12/01/10

3/01/13

12/01/17

W/O:		WORK ORDER CHANGES					
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	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
11-Spot face ground handling holes section (total of 4 places per side) as per dwg D2750									
170	12-Deburr holes								
170	QC10- Inspect visual per QSI004- ground welds	0.00							
QC	Memo	0.00	S. Zuluza						
Quality Control									
180	QC5- Inspect part completeness to step on W/O	0.00	S. Zuluza						
180	Memo	0.00							
QC									
Quality Control									

3 12/01/17

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES							
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220		0.00							
220 HandFinish	HandFinishing								<u>1 BL 12-1-19.</u>
Hand Finishing	Memo	0.00							
	1- Install inserts as per Dwg D2750								

230	0.00								
-----	------	--	--	--	--	--	--	--	--

230 HandFinish	HandFinishing	0.00							
Hand Finishing	Memo								

1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3" batch: N/A.

3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

BATCH: 119508.

EXP DATE: 12-8.

4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: 110348.

5-Coat all exposed fasteners with "LPS Procyon" batch: 114596.

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1

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Reference:

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	*NR1*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270 *270* Packaging	Packaging	0.00							<i>12/11/2011</i>
	Memo	0.00	<i>R60</i>	<i>T</i>					
	Package as per PPP D350-636-011								
280 *280* QC	QC21- Final Inspection - Work Order Release	0.00							<i>12/11/2011</i>
	Memo	0.00							
	Quality Control								

PL/12-01-24

12/11/25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

December-06-11 10:30:13 AM

Page 1

Work Order ID: 77363

77363
D350-636-011

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:I 02.09.25 Rearranged procedure steps KJ
 IPP Rev:J 06-03-23 As per Rev D JLM
 IPP Rev:K 06-07.13 As per dsi9343 EC
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verf:EC
 IPP Rev:M 08-04-22 update steps 4, 13 DD verified by:EC
 IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec
 IPP Rev:O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010
 DD verf:EC IPP Rev:P 10.06.22 revise
 seq110 DD verf:EC IPP Rev:Q 10.10.01 as per IIN revH
 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3492-1		Manufactured	No		230	Each	110.0000	8	8				
---------	--	--------------	----	--	-----	------	----------	---	---	--	--	--	--

D3492-1 *		D3492-041		70185	**	8.	BL 12-1-19
Plug							

Location Loc Qty Loc Code

FP-A	100	
76235	100	
FP-B	10	
69531	8	
74444	2	

D3492-3		Manufactured	No		230	Each	109.0000	8	8			
---------	--	--------------	----	--	-----	------	----------	---	---	--	--	--

D3492-3		D3492-043.		68508.	**	8.	BL 12-1-19.
Plug							

Location Loc Qty Loc Code

FP-A	40	
76236	40	
FP-B	69	
74447	25	
74821	44	

W/O:		WORK ORDER CHANGES					
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Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased No

230 Each

183.0000

8

8

**

*BL 12-1-19****NAS1611-010***

O-RING

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP 130121	183	8.
110915	14	
117460	8	
118077	1	
118612	3	
119438	107	
119623	50	

NAS1149D0863J

Purchased No

250 Each

192.0000

2

2

**

NAS1149D0863.J

WASHER

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST298	192	
118078	92	118078
119307	100	

D2744

Manufactured No

110 Each

41.0000

1

1

**

D2744

Cap

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG002	41	
62715	1	
70881	12	
71861	28	1

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Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

D2600-3-BENT

Manufactured No

110

Each

17.0000

1

1

**

(1) 12/01/08

D2600-3-BENT

Extrusion Bent

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	77623	17
66875	8	
73253	1	
75021	1	
75022	6	
75023	1	

D2743

Manufactured No

160

Each

225.0000

8

8

**

8/12-01-13

D2743

Crossbolt Spacer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	218	
73403	64	
74445	100	B
76141	54	
LG001	7	
67766	4	
68251	3	

D2739

Manufactured No

160

Each

13.0000

1

1

**

RT 12-01-01

D2739

350 I Beam

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	13	
72155	1	
76866	1	
76867	3	
76987	8	

W/O:		WORK ORDER CHANGES					
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D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

D3490-3

Manufactured No

160

Each

50.0000

4

4

**

D3490-3

Cross Bolt Spacer

BL 12-01-13

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	50	
74877	40	
76234	10	

D3490-1

Manufactured No

160

Each

61.0000

4

4

**

D3490-1

Cross Bolt Spacer

BL 12-01-13

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	61	
62450	2	
67773	4	
74875	55	

ALS4-1032-225

Purchased No

220

Each

1,796.000

38

38

**

AI S4-1032-225

Insert

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST281	1796	
108696	271	
110768	62	
118386✓	858	
118966✓	605	

D3793-3

Manufactured No

230

Each

24.0000

1

1

**

D3793-3

Wearshoe

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	24	
74528	8	
74593✓	4	
75043✓	12	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C35A

Purchased

No

230

Each

93.0000

1

1

**

BL 12-1-19.

AN8C35A

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	92	
115960	1	
117834 ✓	29	
118286	62	
ST346	1	
114442	0	
115188	0	
115960	1	

D3793-1

Manufactured

No

230

Each

20.0000

1

1

**

BL 12-1-19.

D3793-1

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	12	
75038 ✓	12	
FP018	8	
74591	8	

D3488-041

Manufactured

No

230

Each

20.0000

1

1

**

BL 12-1-19.

D3488-041

Blade Fitting Assembly, LH

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG008	9	
75056	9	
FP002	11	
61689	1	
67788	1	
69903 ✓	4	
71887	5	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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Page 6

Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No

230

Each

23.0000

1

1

**

D3794-3

Gasket

BL 10-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	23	
74530	9	
74596	14	

AN6C44A

Purchased No

230

Each

83.0000

4

4

**

AN6C44A

BOLT

BL 10-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	2	
103964	2	
ST343	81	
118985	40	
119125	30	
119530	11	

MS21083C8

Purchased No

230

Each

78.0000

1

1

**

MS21083C8

NUT

BL 10-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP-B	1	
115884	1	
ST293	1	
118077	1	
ST303	76	
115884	0	
118614	23	
119309	3	
119436	25	
119638	25	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

D3536-25

Manufactured No

230

Each

31.0000

1

1

**

D3536-25

Gasket

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP012	31	
74595 ✓	5	
75039 ✓	26	

D3631-1

Manufactured No

230

Each

447.0000

8

8

**

D3631-1

Washer

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST072	447	
68062 ✓	2	
75548 ✓	445	

D3791-1

Manufactured No

230

Each

31.0000

1

1

**

D3791-1

Wearplate

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	16	
75041 ✓	16	
FP017	15	
62239	2	
74527	1	
74598	12	

AN960C10L



NAS1149C0332 ✓ Purchased

R

No

230

Each

0.0000

38

38

**

***AN960C10I ***

washer

119 736

38.

BL 12-1-19.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Picklist Print

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Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

D2745

Manufactured No

230

Each

85.0000

8

8

**

BK 12-1-19.

D2745

Bushing

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
FP	76412.	85		8.
	69529	1		
	71835	12		
	74446	72		

AN3C5A

Purchased No

230

Each

1,278.000

34

34

**

BK 12-1-19.

AN3C5A

Bolt

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
FP	,	7		
	115835	7		
ST350		1271		
	116419	28		
	117343	17		
	117764	49		
	117872	2		
	118451	175		
	119127	500		
	119749.	500		34.

D3537-1

Manufactured No

230

Each

100.0000

3

3

**

BK 12-1-19.

D3537-1

Wearpad

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
FP002	77036.	95		3.
	74436	23		
	74867	72		
FP017		5		
	69817	5		

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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Picklist Print

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Page 9

Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0832R

Purchased

No

230

Each

325.0000

1

1

**

BL12-1-19.

NAS1149C0832R

WASHER

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST297	325	
114915 ✓	325	

AN3C6A

Purchased

No

230

Each

318.0000

4

4

**

BL12-1-19

AN3C6A

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	1	
111982	1	
ST351	317	
111982	2	
116419	23	
116549	2	
116704	12	
117619	10	
117688	1	
117872	5	
118422	62	
119449 ✓	100	
119749 :	100	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Page 10

Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased No

230 Each

176.0000

8 8

**

NAS1611-013

O-RING

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP 120121.	176	
116582	5	
117291	2	
117887	53	
119307	72	
119438	2	
119623	42	

D3535-25

Manufactured No

230 Each

27.0000

1 1

**

D3535-25

Wearshoe

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	17	
74525	5	
75040	12	
FP018	10	
62233	1	
74592	9	

D3794-1

Manufactured No

230 Each

41.0000

1 1

**

D3794-1

Gasket

BL 12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP014	41	
74529	1	
74594	12	
75042	28	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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December-06-11 10:30:14 AM

Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

MS21043-6

Purchased No

230

Each

425.0000

4

4

**

MS21043-6

NUT

BL12-1-19.

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FG	20	
103693	20	
ST300	405	
112314	195	
117887	10	
118384	200	

D3493-1

Manufactured No

250

Each

45.0000

2

2

**

*L****D3493-1***

Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST062	45	
70697	4	
71846	11	
76237	30	

MS21083C8

Purchased No

250

Each

78.0000

2

2

**

*76237**L 10/01/22 ①****MS21083C8***

NUT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP-B	1	
115884	1	
ST293	1	
118077	1	
ST303	76	
115884	0	
118614	23	
119309	3	
119436	25	
119638	25	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

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Page 12

Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C21A

Purchased No

250 Each 55.0000

2

2

**

[Signature]

*S *AN8C21A*
BOLT*

Location	Loc Qty	Loc Code
ST343	55	
118045	5	
118758	20	
119530	30	

NAS1515H3L

Purchased No

230 Each 131.0000

4

4

**

119530

BL 12-1-19.

*NAS1515H3L *

WASHER

Location	Loc Qty	Loc Code
FG	40	
102472	40	
ST277	91	
118686	3	
119438	88	

D2741

D2741
Blade, 350 Skidtube

Manufactured No

250 Each 38.0000

1

1

**

4.

12/01/2010

Location	Loc Qty	Loc Code
ST	-4	
71856	6	
ST466	42	
71856	32	

71856

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

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Page 13

Work Order ID: 77363

77363

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH

Start Date: 06/12/2011

Required Date: 20/12/2011

Start Qty: 1.00

Required Qty: 1.00

D3532-1

Manufactured No

250

Each

42.0000

2

2

**

D3532-1
S
Spacer*6/12/12*

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST065	42	
73342	2	
74880	40	<i>74880</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C4A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- 1) MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- 2) FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- 8) WELD PER DART QSI 004
- 9) INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- 10) FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- 11) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- 12) SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL 
- 13) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL 

SHOP CRAFT
RETURN
ENGINEERING
UNCONTROLLED
SUBJECT TO CHANGE
WITHDRAWN
WORK AREA
NO. 77363 M.L.J

1112/06

RELEASED
6/29/22 M.J.

F	INCORPORATE DS19413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/35 (ZN BB-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN BB-1); D3488-041/-042/-043/-044 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 1 AND 13 (ZN A6-1); REASON: REF. NCH 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H16L; REMOVE QTY (11), QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SI-ACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

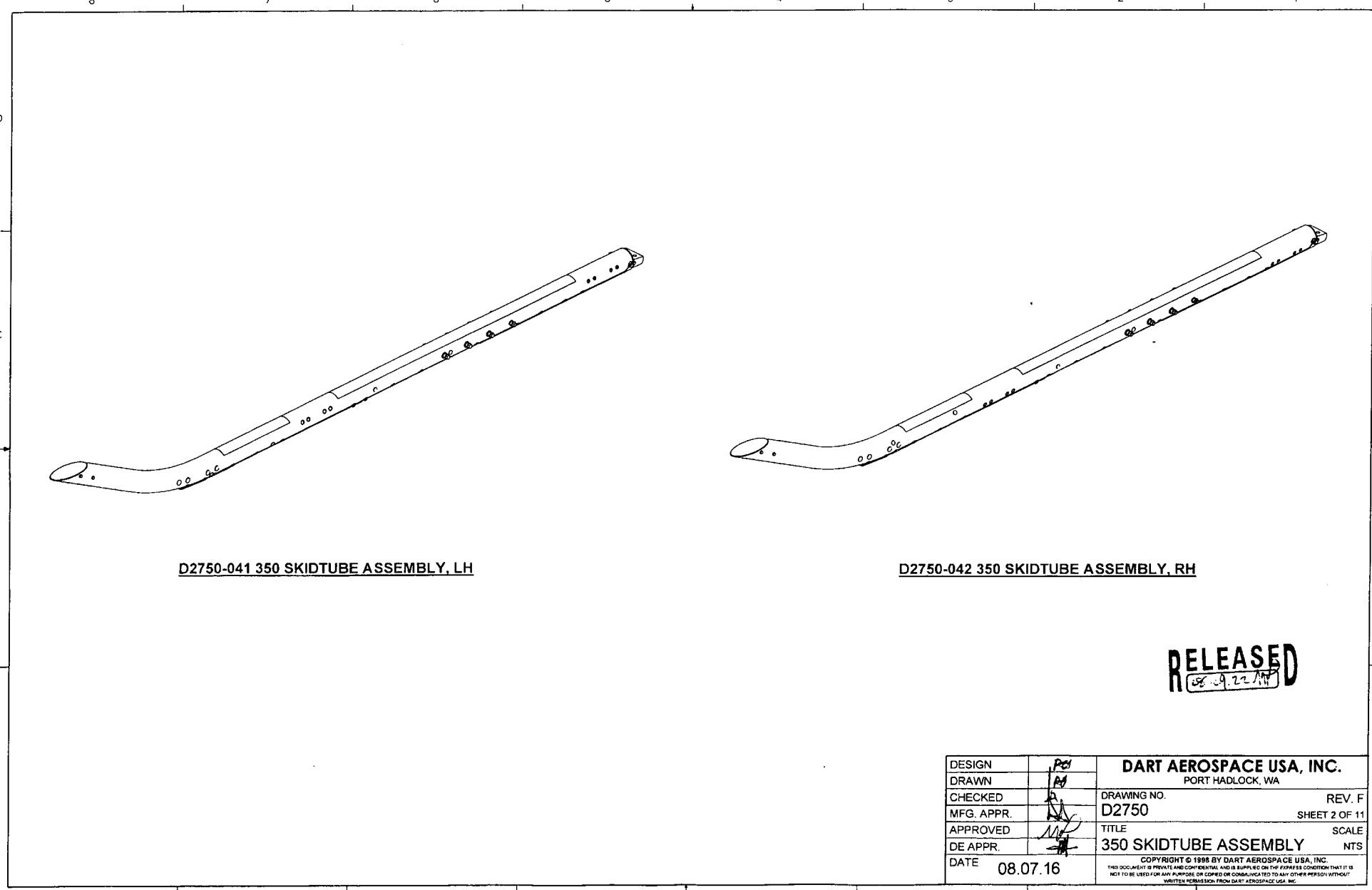
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

77363



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

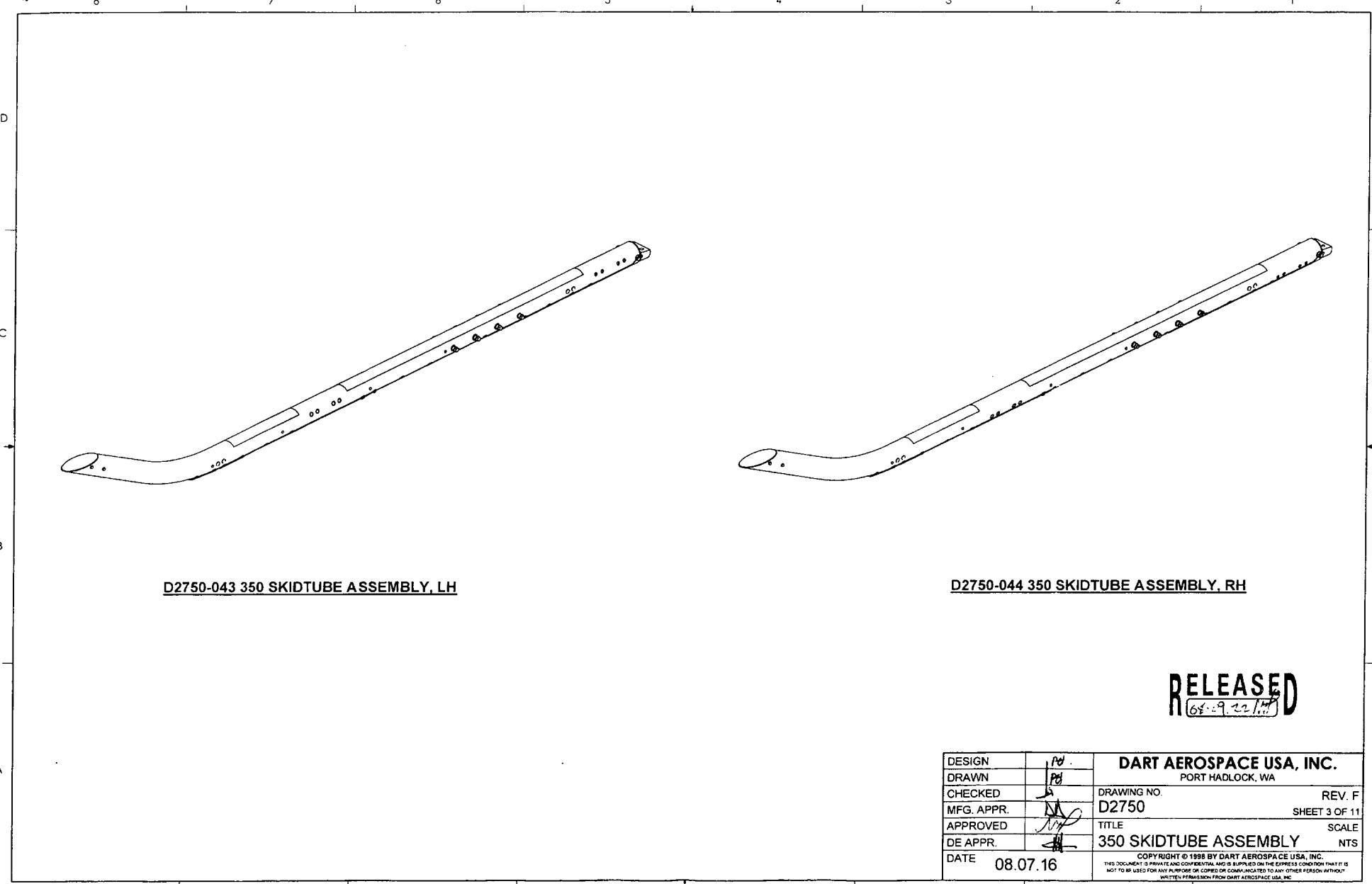
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Resolution: _____ Disposition: _____ QA: NC Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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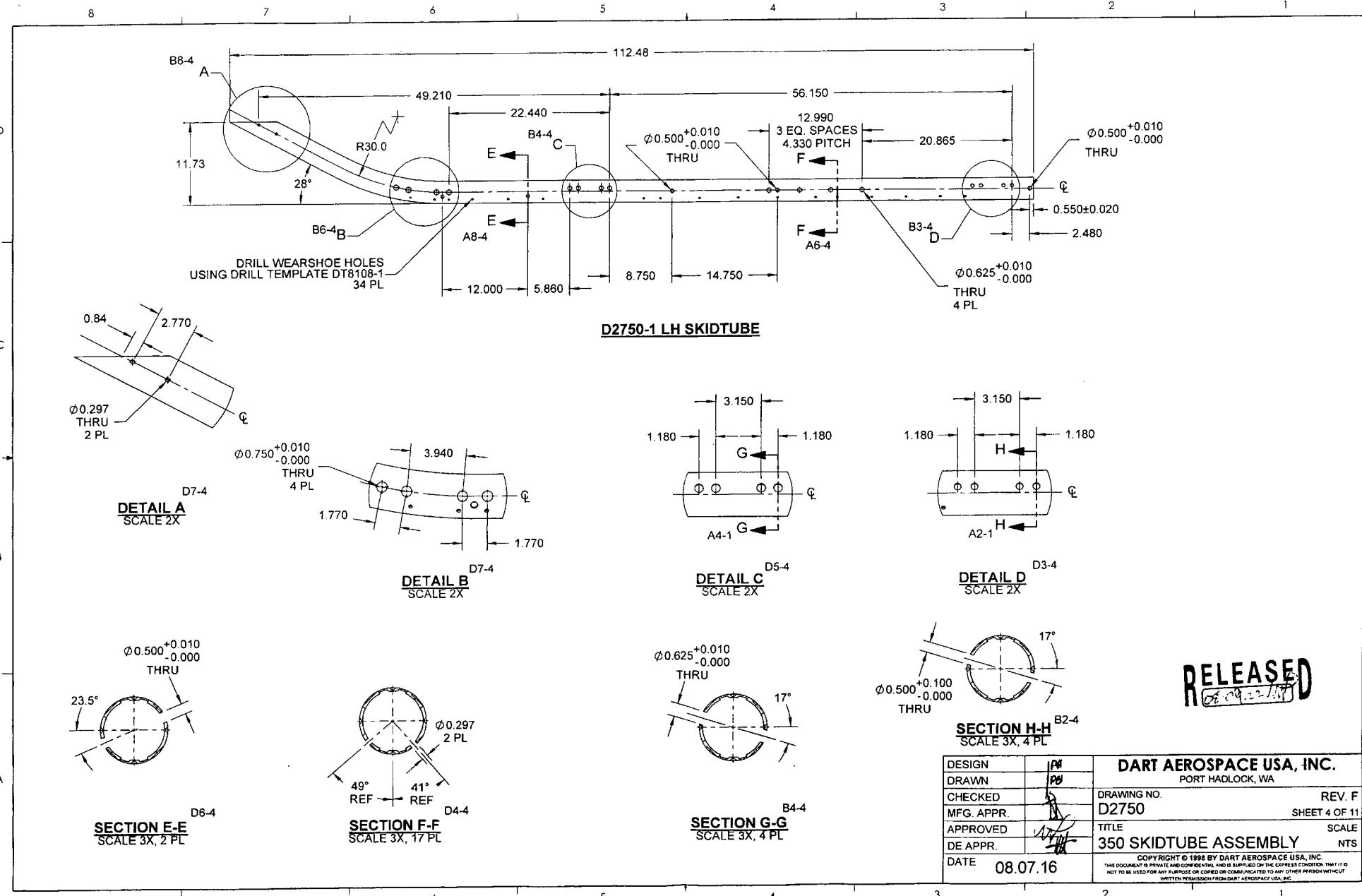
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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RELEASED
06-09-2014

DESIGN	<u>PM</u>	DART AEROSPACE USA, INC.		
DRAWN	<u>PS</u>	PORT HADLOCK, WA		
CHECKED	<u>S</u>	DRAWING NO.	REV. F	
MFG. APPR.	<u>S</u>	D2750	SHEET 4 OF 11	
APPROVED	<u>WJH</u>	TITLE	SCALE	
DE APPR.	<u>WJH</u>	350 SKIDTUBE ASSEMBLY	NTS	
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS		

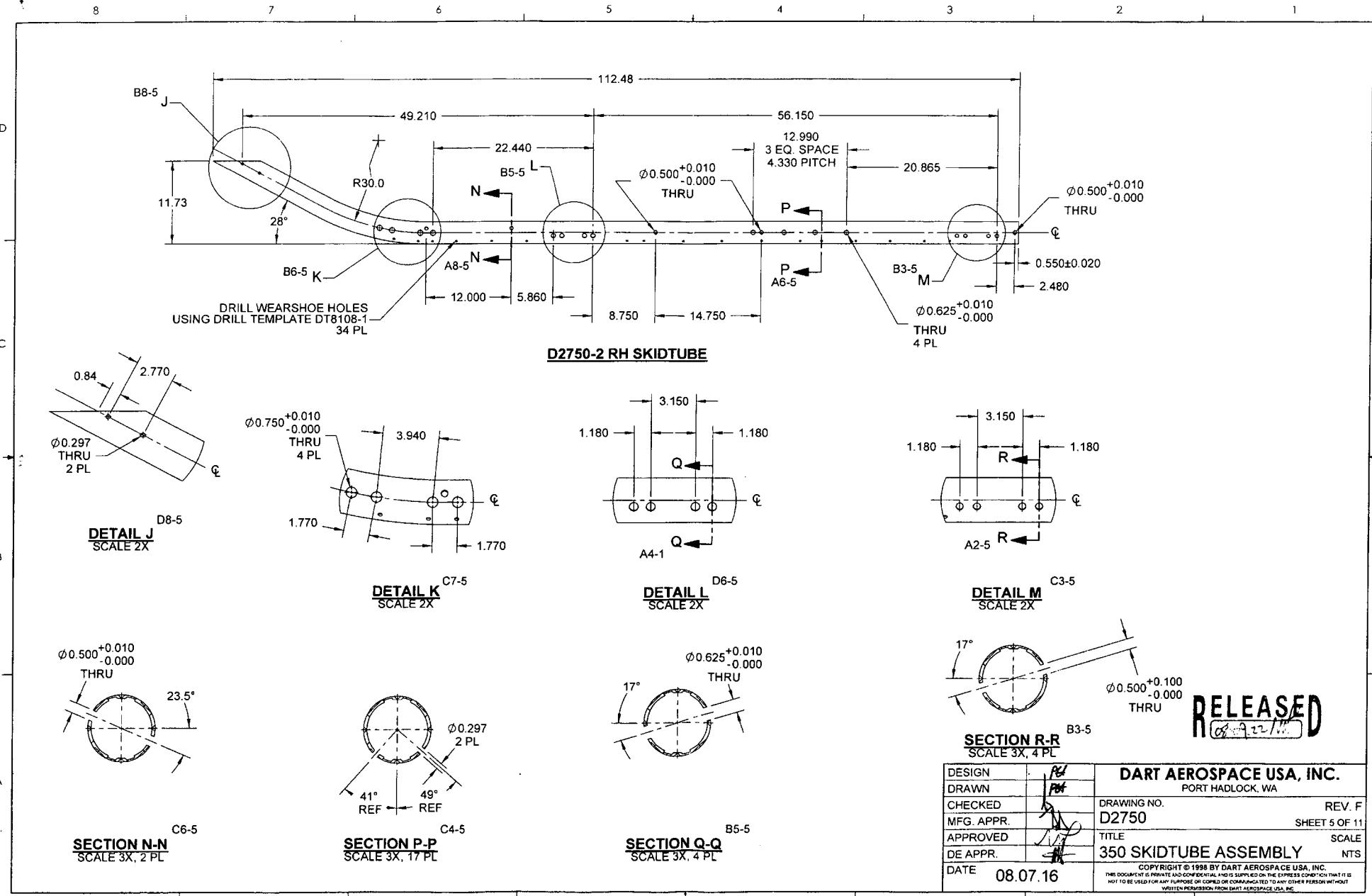
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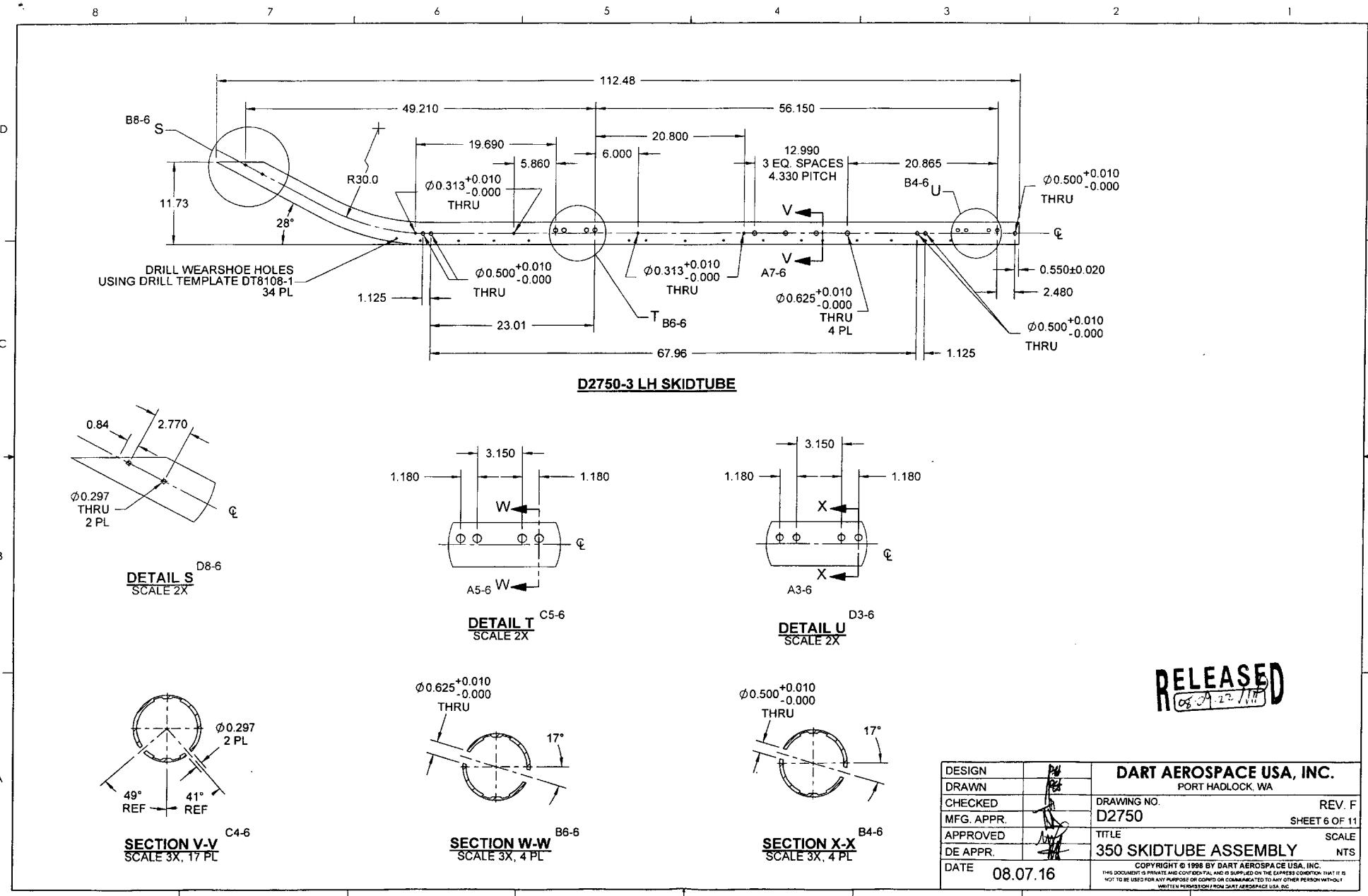
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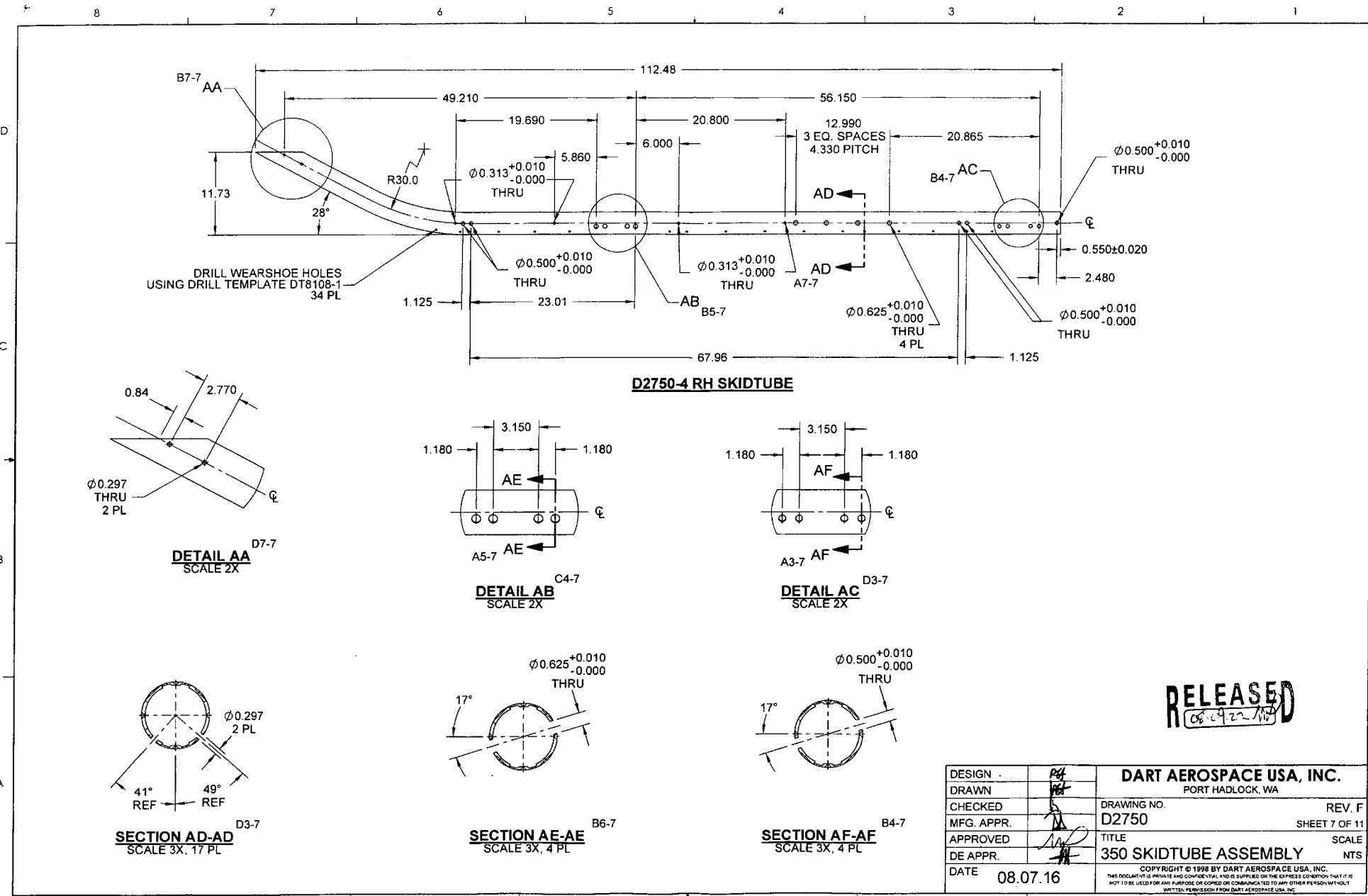
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Dart Aerospace Ltd

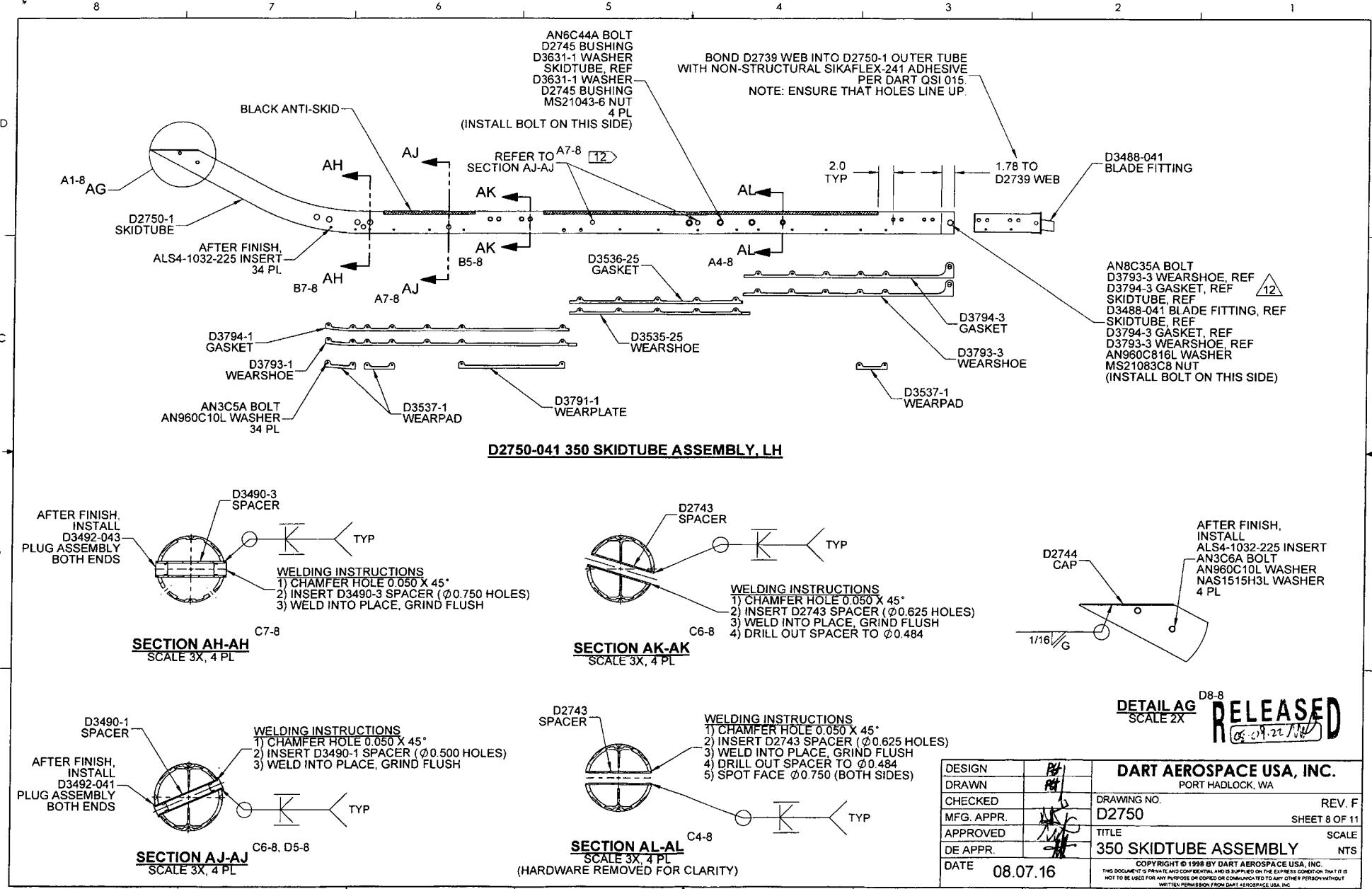
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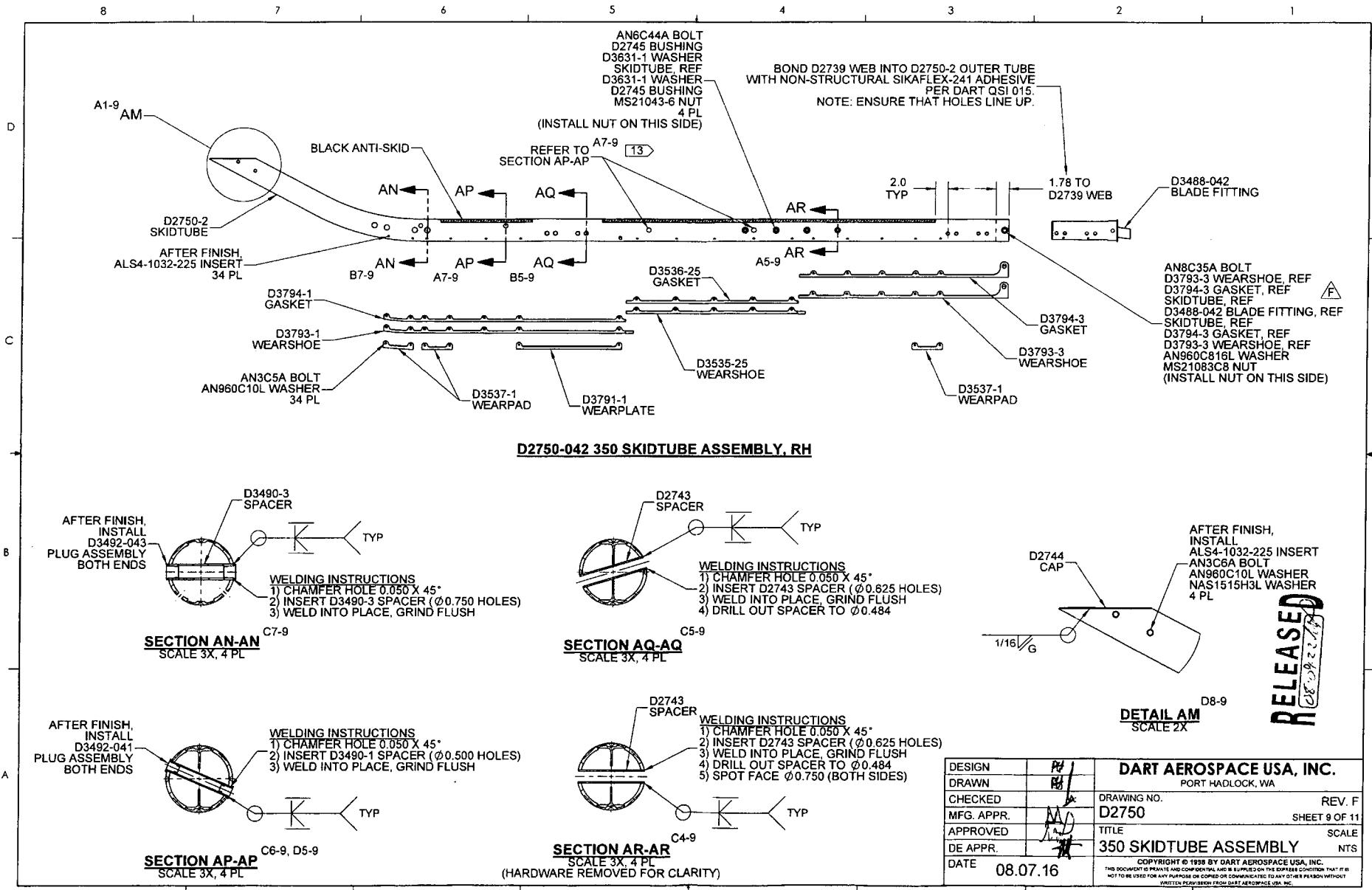
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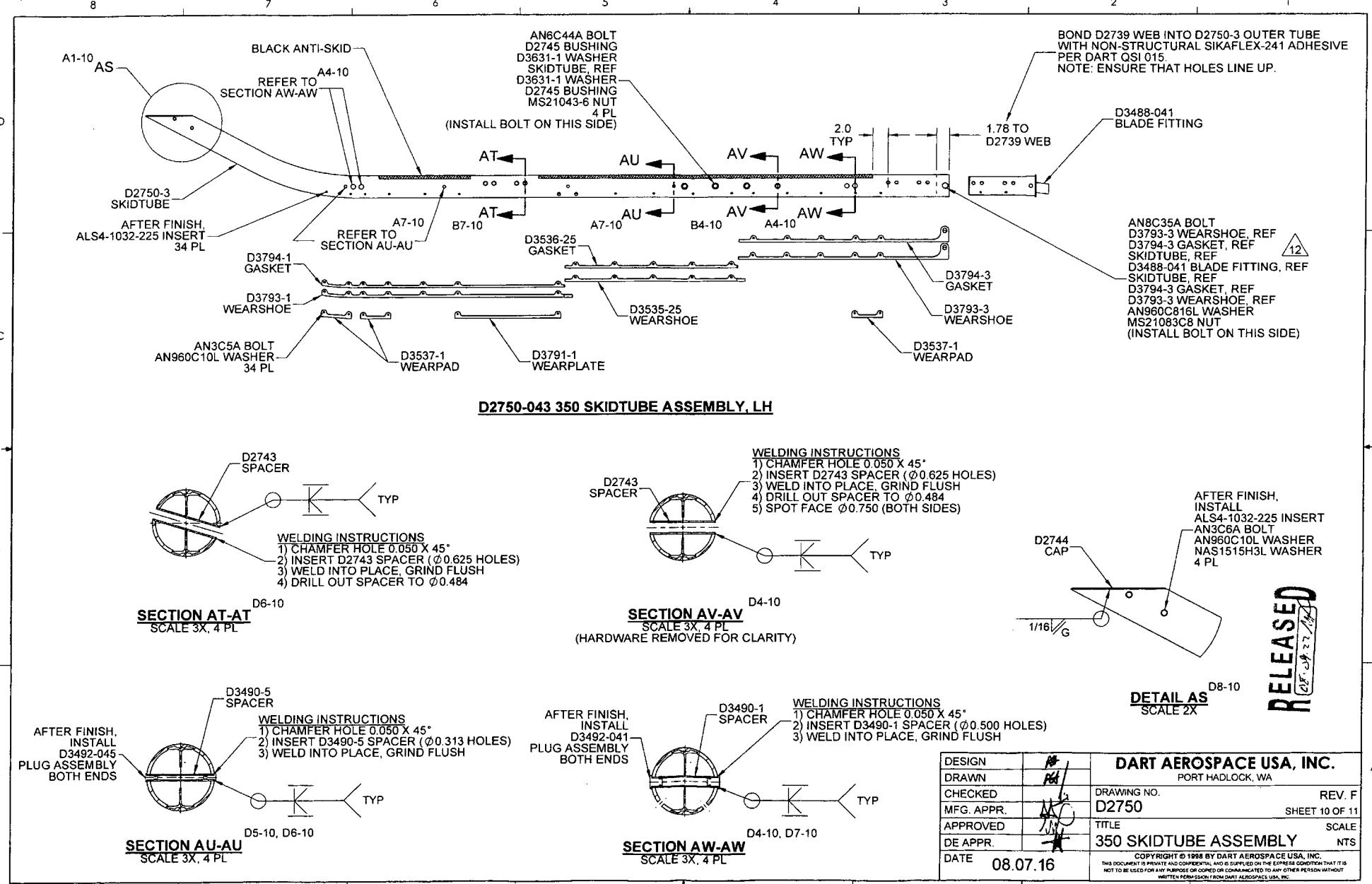
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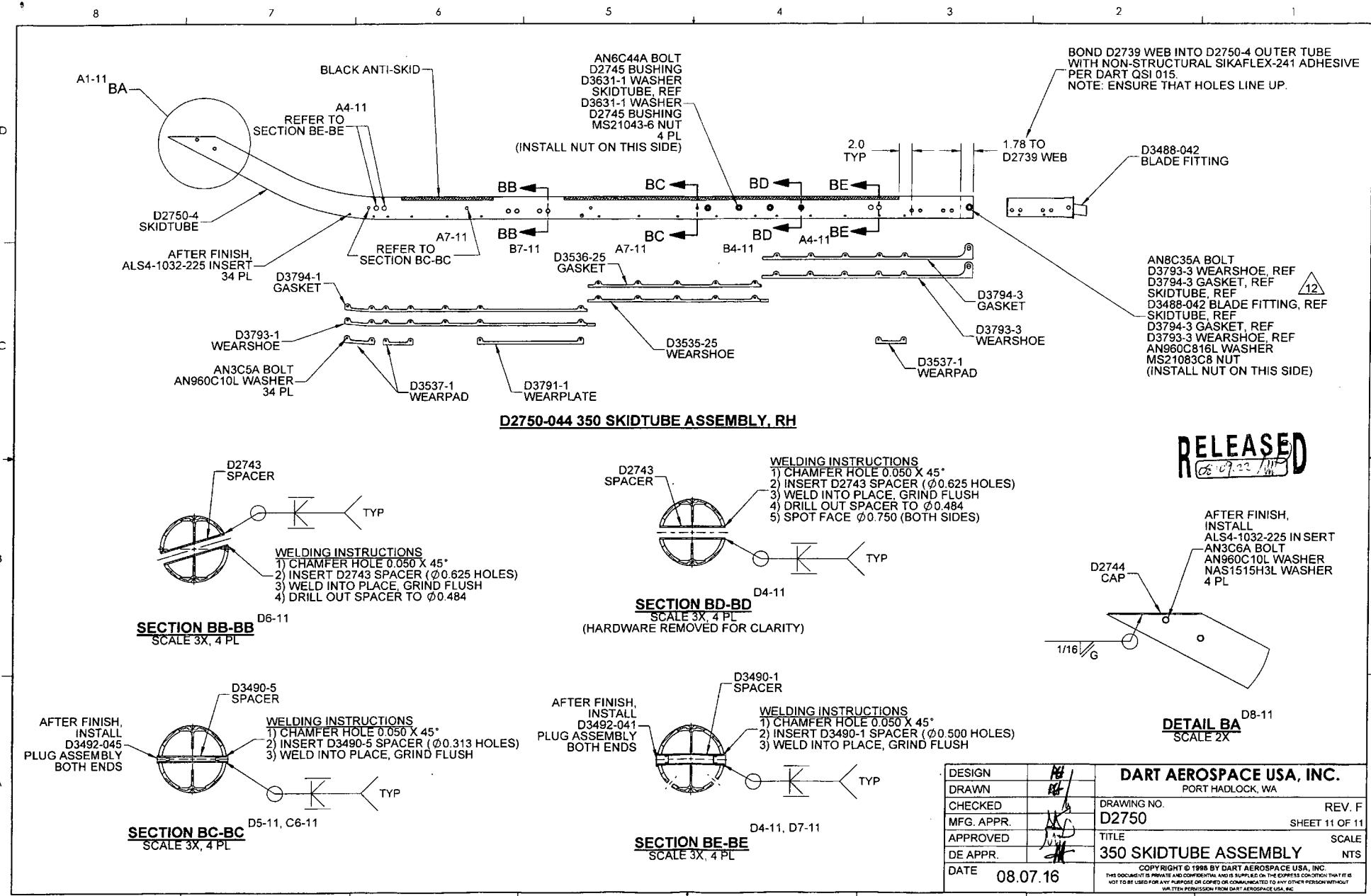
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NO. 279

AWS D17.1.2001

QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 77362
Part number: D 350 636 012
Description: 350 Skidsteer
Welding Process: Tig Mig
Base materiel: Aluminum
Current: AC DC

TEST REQUIREMENTS AND RESULTS

Visual: pass fail
Penetration: pass fail

UNACCEPTABLE

Cracks: pass fail
Undercut: pass fail
Pin holes: pass fail
Overlap (cold lap) pass fail
Porosity (surface): pass fail
Coloration: pass fail

Qualifier Sal Fourn Date of Test Coupon 11-12-22

Welder Barclay Elliott Date of Test Coupon 11-12-22

The above named individual is qualified in accordance with AWS D17.1.2001 to weld